

REMARKS

The Amendment, filed in response to the Office Action mailed on January 28, 2011, is believed to fully address all and every issue raised in the Office Action. Favorable reconsideration and allowance of the application is respectfully requested.

Claim Status

Claims 12-13, 16-19, 21 and 22 are all the claims pending in the application. Claims 12-13, 16-19, 21 and 22 are being examined and are rejected.

Response to Claim Rejections under 35 U.S.C. § 103(a)

Claims 12-13, 16-19, 21 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 59-163128 in view of Sato. WO 03/016544 (US 7,374,915) is relied upon for translation.

According to the Office, JP 59-163128 discloses a method wherein an inert gas is bubbled through a liquid food product such as milk to prevent oxidation, and Sato suggests that DHNA exhibits positive effects such as alleviating abdominal effects associated with milk products. Thus, the Office takes the position that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the milk beverage of JP 59-163128 by incorporating DHNA as taught by Sato.

Applicants respectfully traverse the rejection.

Applicants initially point out that neither JP 59-163128 nor Sato recognizes the importance of adding DHNA under reduced oxygen via nitrogen addition. Rather, Applicants submit that this step is an important inventive step of the presently claimed method, as nothing in the prior art has previously recognized that the loss DHNA can be prevented without using ill-tasting stabilizing agent by bubbling nitrogen and then heating under pressurized temperature.

Furthermore with regard to JP 59-163128, Applicants submit the following.

In JP 59-163128, dissolved oxygen concentration is decreased by substitution of inert gas. However, the method described in JP 59-163128 is dissimilar from the presently claimed method.

In JP 59-163128, inert gas substitution is carried out in beverage production for the purpose of maintaining quality control during preservation. During this quality control step, a specific barrier-type container is employed as a means to prevent oxygen intake during preservation, keeping dissolved oxygen at a low concentration during preservation.

On the other hand, the distinct feature of the present invention is that DHNA can be stabilized by reducing the level of oxygen dissolved in a solution containing DHNA by substituting the oxygen with an inert gas prior to sterilization. Importantly, this phenomenon is shown both in a barrier-type container (*see* Example 3, which relates to DHNA-containing vegetable drink which was filled in Tetra Brick-Aseptic) but also in a non-barrier-type container (*see* Example 2, which relates to DHNA-containing plain yogurt which was filled in a container which does not have barrier property against oxygen).

In both cases, DHNA activity was stabilized by decreasing the concentration of dissolved oxygen by substitution with inert gas. However, in JP 59-163128, which utilizes inert gas substitution in a specific barrier-type container similar to Example 3 discussed above, there is no recognition that DHNA could be stabilized in this manner. Accordingly, Applicants have unexpectedly found that stabilizing DHNA does not necessarily depend on dissolving the solution oxygen concentration during preservation of products. This key element is not recognized by the cited prior art.

At least in this respect, Applicants submit that the presently claimed method, which stabilizes DHNA in a non-barrier container, exhibits unexpected properties over the method described in JP 59-163128, which utilizes inert gas substitution in a specific barrier-type container (without any disclose of adding DHNA).

For at least the above reasons, Applicants submit that present claims 12-13, 16-19, 21 and 22 are patentable over JP 59-163128 and Sato.

Withdrawal of the rejections is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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